



RANI CHANNAMMA UNIVERSITY, BELAGAVI
Vidya Sangam
2015-16

Regulations & Syllabus
for
P.G. DEPARTMENT OF STUDIES IN
GEOGRAPHY

M. Sc I Semester
Under Choice Based Credit System
CBCS

WITH EFFECT FROM 2015-16 & ONWARDS



RANI CHANNAMMA UNIVERSITY, BELAGAVI
Vidya Sangam'
School of Applied Sciences
Department of Studies in Geography
CBCS (Choice Based Credit System)

I. Introduction:

In order to lessen the pressure at the main campus Dharwad the P. G. Centre at Belgaum considering its cultural, commercial, industrial and educational background, this P. G. Centre came in to existence in June 1982 as an offshoot of the Karnatak University Dharwad.

With the introduction of Geography in many colleges, there was a growing demand for post-Graduate Studies and Research in Geography. Dr. D. M. Nanjunndappa, Former Vice Chancellor, Karnatak University Dharwad was instrumental in starting a Post Graduate Studies in Geography at Belgaum in 1982. The Department of Studies in Geography has initially attached to the Department of Geography of the Rani Pravathi Devi College Belgaum, as it had well equipped laboratories as well as qualified staff, later it was shifted to Karnatak University, Kittur Rani Channamma Post Graduate Centre Belgaum.

The P. G. Centre of the Karnatak University Belgaum after 28 years of its inception has become the independent university got status as Rani Channamma University Belagavi and Dr. B. R. Ananthan took charge as the first Vice-Chancellor of the new university. Now, Prof. Shivanand B. Hosamani, is leading as Vice-Chancellor of our university.

II. Vision:

Vision of the Department of Geography is to understand physic-cultural forms, processes and structures in different complex environmental systems on the surface of the mysterious mother earth and thereby empowering and enriching students with skills in decision making and planning for human welfare.

III. Goals & Objectives of the Department:

The following objectives have been kept in view while designing the M. Sc. degree and Ph.D. Programmes in Geography.

- To provide a fundamental of spatial information of the earth surface.
- To promote the study and research activities in various branches of Geography.
- To bring the geographical awareness among the masses for application of this knowledge to sort out their day-to-day problems.
- To train the learners in the discipline for the dissemination of knowledge to the society and to be self-reliant.
- To educate the members of the geographical association for proper use, reuse conservation and preservation of natural and human recourses with sustainable approach.
- To develop the strong co-ordination among the different branches of the discipline to have better interaction with other disciplines.
- To arrange the seminars, workshops, training programmers etc for college teachers and members of the Geography Association from the different sectors of intellectual society.
- Organizing the professional tours for the M.Sc students every year.

IV. Admission Criteria:

A candidate should have passed B. A./B. Sc degree in Geography as one of the optional subject at least 45% of marks in Geography as well as in B. A./B. Sc as aggregate marks. Relaxation in respect of SC/St etc. will be followed as per prevailing rules of the University.

V. Intake Capacity:

The total intake of students for M.Sc Geography is 20 seats under normal category and additional seats as directed by the university from time to time.

VI. Medium of Instruction:

The medium instruction shall be English.

VII. Attendance:

A minimum of 75% of attendance in each semester is necessary. Shortage of attendance will be dealt with as per the University rules. Marks shall be awarded to the students for attendance as specified by the university as shown below:

- More than 90 % attendance : 3 Marks
- 80 to 90 % attendance : 2 Marks
- 75 to 80 % attendance : 1 Marks
- Less than 75 % attendance : Not eligible

VIII. Academic Programmes Offered:

- Two years M.Sc Course (i.e. four semesters)
- M. Phil and Ph .D Programmes in Geography

IX. Scheme of Instruction:

The Department of Geography offers M. Sc degree in Geography. It is two years degree programme. The entire course consists of four semesters and each semester comprising of *four theory papers*, each of (80+20) 100 marks and *two practicals* each of (80+20) 100 marks. In case of M. Sc IIIrd and IVth semester, *three optional* papers on choice base each of (80+20) 100 marks (i.e. candidates have to select any one).

The duration of theory paper will be four (04) hours per week and the duration of practical paper will be four (04) hours per week in each semester. Each theory paper will have 5 modules/ units (divided into chapters/units). The duration of each semester is being 16 weeks excluding examination period.

X. Scheme of Theory Examinations:

- Theory course shall carry 100 marks of which 80 marks allotted for semester end examination and 20 marks for internal assessment (IA).
- Each theory course will have a question paper of 3 hours duration and the maximum of 80 marks. Minimum marks to pass in each paper of theory are 40 percent.
- There shall be three sections in every question papers viz. A. B. & C. *Section A* shall have 6 questions of each 2 marks and candidates have to attempt 5 questions only (5X2=10 marks). *Section B* shall have 6 questions of each 10 marks and the candidates have to attempt 4 questions only (4X10=40 marks). *Section C* shall have 4 questions of each 15 marks and the candidates have to attempt 2 questions (2X15=30 marks).

XI. Scheme of Practical Examination:

- Each practical course shall carry 100 marks of which **20 marks** are allotted for **IA marks**, out of which **12 marks** (**Ist test for 04 marks and IInd test for 08 marks**) are kept for **two tests**, **03 marks** allotted for **attendance** and **05 marks** for practical **records/journals**. The 80 marks examination will be conducted at the end of each semester as per the instruction given by the university.
- Each practical course will have a question paper of 4 hours duration and the maximum of 80 marks.
- The practical examination is to be conducted in batches as per the university guidelines.
- There will be one internal examiner and one external examiner to conduct the practical examination for each batch in each semester.
- Minimum marks to pass in each paper of practical are 40 percent.
- Each candidate shall complete the laboratory work of the journal/practical records, it shall be certified and signed by both the concerned course teacher and the Head of the Department of Geography, to the effect that the candidate has completed the prescribed course in practical satisfactory and it should be produced at the time of practical examination. No students shall be allowed for the examination without completed journal/practical records.
- There is no provision for seeking improvement in practical paper examination and internal assessment marks.
- In case of the Project/Dissertation work, 20 marks are allotted for IA and 80 marks are allotted for the evaluation of the dissertation/ report and viva-voce at the end of the IV semester as per the direction of the concerned chairman of the department.

‘Vidyasangam’

Department of Studies in Geography
(Choice Based Credit System)

M. Sc Ist Semester Geography

Paper	Subject Title	Theory/ Practical Hour per week	Core & Elective	Credits	Duration of Exam hours	Max. of marks	I.A marks	Total
	<i>Theory paper:</i>							
1.1	Geomorphology	4	Core	4	3	80	20	100
1.2	Climatology	4	Core	4	3	80	20	100
1.3	Oceanography	4	Core	4	3	80	20	100
1.4	Development of Geographical Thought	4	Core	4	3	80	20	100
	<i>Practical paper:</i>							
1.5	Practical-I <i>Toposheet and Weather Map Interpretation</i>	4	Core	4	4	80	20	100
1.6	Practical-II <i>Statistical Methods in Geography</i>	4	Core	4	4	80	20	100


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	<i>Theory paper:</i>							
1.1	Geomorphology	4	Core	4	3	80	20	100
1.2	Climatology	4	Core	4	3	80	20	100
1.3	Oceanography	4	Core	4	3	80	20	100
1.4	Development of Geographical Thought	4	Core	4	3	80	20	100
	<i>Practical paper:</i>							
1.5	Practical-I <i>Toposheet and Weather Map Interpretation</i>	4	Core	4	4	80	20	100
1.6	Practical-II <i>Statistical Methods in Geography</i>	4	Core	4	4	80	20	100

RANI CHANNAMMA UNIVERSITY, BELAGAVI
Department of Studies in Geography
(Choice Based Credit System)
M. Sc Ist Semester Geography

PAPER 1.1 GEOMORPHOLOGY

Objectives: The objective of the course is to familiarize the students with the need for understanding of Geomorphology with reference to certain fundamental concepts, focusing on the unity of Geomorphology in the earth materials and the processes with or without an element of time. Process component of Geomorphology is segmented into the internal and external processes of landscape evolution. The students have to be sensitized to background knowledge of Geology and Environmental Sciences.

Course Structure:

Unit- I	Definition, Meaning and Scope of Geomorphology, Recent Trends in Geomorphology	06 hours
Unit- II	Principles of Geomorphology, Geological Time-Scale, Theories of Continental Drift and Plate Tectonics and Interior of the Earth.	10 hours
Unit- III	Concept of Isostasy, Rocks: Meaning, Origin, and its Classification.	10 hours
Unit- IV	Earth Movements: orogenic & epeirogenic movements and Faults, Folds and resultant landforms, Earthquakes and Volcanoes distribution and their effects.	10 hours
Unit- V	Geomorphic Processes: Weathering and its types, Cycle of Erosion: W.M.Davis and W.Penck, Morphometric Analysis, and Land forms made by River, Wind, Glacier and Underground Water.	12 hours

REFERENCES:

1	Christopherson, R.W.(1995)	Elemental Geosystems: A Foundation in Physical Geography, Prentice Hall Englewood Cliffs, New Jersey
2	Dayal P, (1996)	A Textbook of Geomorphology, Shukla Book Depot, Patna
3	Hamblin, W.K.(1995)	Earth's Dynamic Systems 7th ed. Preshre Hall, New York
4	Homes. A (1965)	Principals of Physical Geology,3 rd edition ELBSS ed.
5	Monkhouse. F. J(1960)	Principals of Physical Geography, London
6	Majid Hussen (1986)	Physical Geography
7	Savindar. Singh (1999)	Physical Geography, Prayag Pustak Bhavan, Allahabad
8	Spark B. W.	Geomorphology, Longman, London
9	Strahler A. (1996)	Physical Geography; science and system of the Human
10	Strahler. A & A. Strahler-(1992)	Physical Geography, John Wiley & Sons, New York
11	Thornbury, W.D.(1998)	Principles of Geomorphology, 2 nd New Age International Press, New Delhi
12	Whittone, J. (1984)	Dictionary of Physical Geography, Penguin Books
13	S. S. Najannavar	Physical Geography (Kannada Version)

14	Ranganath	Principles of Physical Geography, (Kannada Version), Vidhyanidi Gadag, 2008
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RANI CHANNAMMA UNIVERSITY, BELAGAVI Department of Studies in Geography (Choice Based Credit System) M. Sc Ist Semester Geography		
PAPER 1.2 CLIMATOLOGY		
<u>Objectives:</u> The aim of this course is to provide an understanding of weather and climate phenomena, dynamics of global climates and generation of climatic data, information and their application, interaction between living organisms with climate and physical environment.		
<u>Course Structure:</u>		
Unit- I	Nature and Scope of Climatology and its relationship with Meteorology, Weather and Climate, Composition & Structure of the Atmosphere, Insolation and its distribution on the earth's surface, Horizontal and Vertical Distribution of Temperature and Isothermal Maps.	14 hours
Unit- II	Pressure Belts, Planetary Winds, Mechanism of Monsoons, Local Winds and Jet Streams.	08 hours
Unit- III	Hydrological Cycle, Humidity and process of saturation, forms of Condensation, precipitation, Rainfall and its types.	08 hours
Unit- IV	Origin and Source Regions of Air Masses- Classification of Air Masses, Cyclones-tropical and temperate, Thunderstorms and Fronts.	09 hours
Unit- V	Climatic Classification- Koppen's and Thornthwaite, World Climatic Changes, El-nino, Lanino and its effect, Global Warming, Depletion of Ozone layer, Human Impact on Climate, Environmental Impact on Climate and Society's Response.	09 hours
<u>REFERENCES:</u>		
1	Byers R.H. (1974)	General Meteorology McGraw Hill BKCo New York
2	Cristch Field	Principles of Climatology; Prentice Hall, London
3	Hobbs J.E. (1980)	Applied Climatology, Butterworth, London
4	Lal D. S.(2003)	Climatology Prayag pustak Bhavan, Allahabad
5	Oliver J. E.- (1973)	Climate & Mans Environment, John Wiley & Sons, New York.
6	Pettersons -(1969)	Introduction to Meteorology, McGraw Hill BKCo New York
7	Richl H :(1972)	Introduction to Atmosphere, McGraw Hill BKCo New York.
8	Savindra Sing(2000)	Climatology Prayag Pustak Bhavan, Allahabad Book Co., New York.
9	Sellers W.D (1965)	Physical Climatology, University of Chicago Press, New York
10	Trewartha GT(1968)	An Introduction to Climate, McGraw Hill BK Company, New York
11	Ranganath	Principles of Physical Geography,

		(Kannada Version), Vidhyanidi Gadag, 2008
12	S. S. Najannavar	Physical Geography (Kannada Version)
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RANI CHANNAMMA UNIVERSITY BELAGAVI Department of Studies in Geography (Choice Based Credit System) M. Sc Ist Semester Geography		
PAPER 1.3 OCEANOGRAPHY		
<p>Objectives: The main objective of this paper is to provide in-depth understanding of different oceans, such as evolution of the oceans, physical and chemical properties of seawater, atmospheric and oceanographic circulation. Further, it also aims to acquire knowledge of the marine life and characteristics of marine environment and the impact of man on the marine environment.</p>		
<p>Course Structure:</p>		
Unit- I	Nature and Scope of Oceanography, Distribution of Land and Water, Hypsographic Curve, Bottom Relief of the Oceans- Continental Shelf, Slope, Ocean Plains and Ocean Deeps.	10 hours
Unit- II	Origin and Distribution of Submarine Canyons, Physical and Chemical Properties of Ocean Water, Temperature and Salinity of Pacific, Atlantic and Indian Oceans.	08 hours
Unit- III	Movements and Circulation of Ocean Water- Waves, Tides and its types, Theories of Tides- Progressive theory, Stationary Wave theory, Coral reefs- types and distribution of Coral Reefs.	10 hours
Unit- IV	Ocean Currents: Origin, Cause and Effects of Ocean Currents, Ocean Currents of Atlantic, Pacific and Indian Oceans.	10 hours
Unit- V	Ocean Deposits: Terragenious and Paleagic Deposits, Oceans as a Storehouse of Mineral Wealth and Food Recourses, Marine Pollution, Human Impact on Marine Environment Recent Trends in Oceanography.	10 hours
REFERENCES:		
1	C.A.M. King	Oceanography for Geographers
2	Dasagupta and Kapoor	Principles of Physical Geography, S. Chand and Co. New Delhi.2001
3	Lal D.S.	Oceanography
4	Ranganath	Principles of Physical Geography, (Kannada Version), Vidhyanidi Gadag, 2008
5	Sharma and Vatal	Ocenography for Geographers
6	Vatal and Sharma	Oceanography for Geographers
7	S. S. Nanjannavar	Principles of Physical Geography, (Kannada Version),

8	Ranganath	Principles of Physical Geography, (Kannada Version), Vidhyanidi Gadag, 2008
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RANI CHANNAMMA UNIVERSITY BELAGAVI Department of Studies in Geography (Choice Based Credit System) M.Sc Ist Semester Geography		
PAPER-1.4 DEVELOPMENT OF GEOGRAPHICAL THOUGHT		
Objectives: This paper is intended to acquaint the students with distinctiveness of geography as a field of learning in social science and science as well as in natural science. The philosophy and methodology of the subject is discussed in length and to provide the students for comparative understanding of the development of the history of geographic thought.		
Course Structure:		
Unit- I	Introduction: Nature, Scope and Philosophy of Geography. Concepts and Approaches to study of Geography. Branches of Geography and Relationship with Other Sciences.	08 hours
Unit- II	Major Schools of Geographical Thought: i) Ancient : Greek, Roman and Chinese ii) Medieval : Arabs, Christians and Chinese iii) Modern : German, French, British and American	10 hours
Unit- III	Dualism and Dichotomies in Geography; i) Systematic Geography Vs Regional Geography ii) Physical Geography Vs Human Geography iii) Determinism Vs Possibilism iv) Deductive (Theoretical) Vs Inductive (Empirical) v) Geography as a Science Vs Geography as a Arts vi) Contemporary Geography Vs Historical Geography	10 hours
Unit- IV	Themes in Geography; i) Landscape theme ii) Man-Environment relationship theme iii) Areal differentiation theme iv) Spatial theme and v) Geometric theme	10 hours
Unit- V	Development of Modern Geography; Quantitative Revolution, Scientific Method, Hypothesis, Theories, Models, Analogies and Paradigms.	10 hours
REFERENCES:		
1	Adhikari Sudepta (1972)	Fundamentals of Geographic Thought Chaitanya Publishing House, Allahabad
2	Cook and Johnson	Trends in Geography, Pergamow Press London
3	Dickinson R.E.(1969)	The Makers of Modern Geography, Rout/Edge & Kegan Paul, London
4	Dixit R.D. (1999)	Development of Geographic Thought, Longmans India Limited
5	Free Man T.w.(1965)	Geography As Social Science, Harper International Edition, Harper & Row Publishers, New York
6	Harvey D. (1969)	Explanation in Geography London, Edward Arnold
7	Hartshorne R.(1959)	Perspective on the Nature of Geography Rand McNally, Chicago
8	Majid Hussain (1999)	Geographic Thought Rawat Publishing House, Jaipur
9	Richard Peet (1977)	Radical Geography - Alternative View Points On Contemporary Social Issue, Methuen & Co. Ltd, London

10	Holt Jensen, Arid: (1998)	Geography: History and Concepts, Sage Publication, New Delhi
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M.Sc Ist Semester Geography		
PAPER-1.5 -TOPOSHEET AND WEATHER MAP INTERPRETATION		
PRACTICAL-I		
Objectives: The objective of this course is to introduce to the students about some basic information and concepts of Survey of India toposheets as well as ordinance survey toposheets, and to train the students to handle these topographical maps and applied to various themes in Geography.		
Course Structure:		
Unit- I	SOI Toposheets: Meaning and its importance, Indexing of SOI Toposheets, Marginal Information of Toposheets, Grid reference- Eastings & Northings, Findings of four and six figure grid references, Measurement of area by using toposheets and Conventional signs and symbols used in Toposheets.	07 hours
Unit- II	Theoretical background for the identification and interpretation of various features mainly (without supplying the toposheets) a) Landforms- mountains, plains and plateaus b) Drainage- trellis, dendritic, parallel, radial and dispersing c) Settlements- nucleated/compact, dispersed/scattered, linear and radial patterns. d) Transport- types of roads, railways and air.	08 hours
Unit-III	a) Over all interpretation of given SOI and US Toposheets of the following features: (at least each of two exercise) 1. Relief 2. Drainage 3. Vegetation 4. Settlements 5. Means of communication and 6. Irrigation and Land use b) Drawing of cross section and calculation of Vertical Exaggeration (at least three exercises)	10 hours
Unit-IV	1) IMD Weather Maps- Conventional Symbols and Marginal Information. 2) Meteorological Instruments: Thermometers – Dry and Wet Bulb Thermometer, Aneroid Barometer, Wind Vane, Cup Anemometer and Rain Gauge.	10 hours
Unit-V	Interpretation of Indian weather maps (season-wise) and Foreign weather maps – Station Model and interpretation of Foreign weather maps at least two exercises.	10 hours
REFERENCES		
1	Ashish sarakar	Practical Geography A Systematic Approach Orient Longman Limited, Kolkatta
2	Gopal Singh	Map Work and Practical Geography, 3 rd edition, Vikas Publishing House, New Delhi
3	Gupta K.K and Tyagi V.C	Working with maps Survey of India Department of Science and Technology, Govt of India, Dehra Dun 1992
4	Mishra R.P	Fundamentals of Cartography 1969, Prasaranga, University of Mysore, Mysore
5	Monkhouse FJ	Maps and Diagram Mathuen and Co, Ltd., London, 1952
6	Pijushkanti Saha & P. Basu	Advanced Practical Geography
7	Singh. R.L	Elements of Practical Geography

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Department of Studies in Geography
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M.Sc Ist Semester Geography

PAPER-1.6 STATISTICAL METHODS IN GEOGRAPHY
PRACTICAL-II

Objectives: The objective of this course is to train the students in the art of representing the Geographic, demographic and Socio-Economic database of any area through simple statistical methods and cartograms. It also introduces some basic statistical procedures, limitations interpretation etc. to the students to be applied to the various themes in Geography.

Course Structure:

Unit- I	Definition of Statistics, Importance & use of statistical techniques in Geography, Sources of data, Methods of data collection and Sampling and its types.	05 hours
Unit- II	Frequency Distribution-Frequency table, Histogram, Frequency curve, Frequency Polygon, Ogive/Cumulative Frequency curve.	10 hours
Unit- III	Measures of Central Tendency : Calculation of mean, median and mode. Absolute measurements-Arithmetic mean, Geometric mean and Standard deviation.	10 hours
Unit- IV	Measurement of Dispersion: Significance of measuring variation, Difference between dispersion and Skewness Range, Quartile deviation, Mean deviation, and Standard deviation.	10 hours
Unit-V	Correlation Analysis: Types of correlation, Karl Pearson's Product moment coefficient correlation Spearman's rank order correlation, Regression analysis, Chi-Square Test, Time series, Moving averages and Least square method.	10 hours

REFERENCE:

1	Aslam Mahmood(1998)	Statistical Methods in Geographical Studies
2	Cole,J.P.&King,C.A.M.(1968)	Quantitative Techniques in Geography
3	Elhance, D.N. (1972)	Fundamentals of Statistics, Kitab Mahal, Allahabad
4	Gregory, S.(1968)	Statistical Methods and the Geographer Longman, London.
5	Gupta, C.B.(1978)	An introduction to statistical Methods, Vikas Publications House, New Delhi
6	Hoel P.G.	Elementary Statistics, Wiley, New York.
7	Hemawati	Statistical Methods for Geographers
8	King, L.J. (1991)	Statistical Analysis in Geography
9	Pijushkanti Saha & Partha Basu	Advanced Practical Geography

10	Singh R. L.	Elements of Practical Geography
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